

# SULLIVAN CREEK PROJECT

## REVIEW OF EXISTING INFORMATION & KEY INFORMATION NEEDS

### SUMMARY OF PRIMARY DATA SOURCES

Most of the information available on Sullivan Creek comes from studies conducted between 1992 and 1996 in support of Pend Oreille PUD's application to the FERC to license new generation facilities at the Sullivan Creek Project. The documents on the Institute for Environmental Conflict Resolution (ECR) web site include the study reports, select sections of the license application, and responses to additional information requests (AIRs). The ECR web site also includes two more recent reports on reservoir ecology and an Ecology publication from 2005 on water quality for streams, including Sullivan Creek, in the Colville National Forest.

The Colville National Forest web page for Sullivan Creek does not provide any documents with information on natural or cultural resources in the vicinity. The Pend Oreille County PUD web site includes short summary "fact sheets" on recreation, history, and natural resources in the Sullivan Creek area.

Other relevant documents that could be added to the websites include:

- ***Sullivan Creek RM 0.65 Fish Barrier Assessment*** (Powers 2008)
- ***Fishery and Limnology Investigation of Sullivan Lake*** (Nine and Scholz 2005) – master's thesis from Eastern Washington University; focuses on fisheries and operational scenarios for Sullivan Lake;
- ***Fisheries Survey of the Limnetic Zone of Sullivan Lake*** (Baldwin and McLellan 2003) – WDFW study report with similar fish results to Nine and Scholz (2005).
- ***Assessment of Factors Affecting Aquatic Productivity in Tributary Habitats*** (James, Gross, and O'Neal 2008); (attached)
- ***Mill Pond Historic Site*** – a summary of the history of Mill Pond from the North Pend Oreille Scenic Byway web site

### KEY INFORMATION NEEDS

The following sections provide very brief summaries of the available information for each resource area, as well as key information needs.

#### **Fish and Aquatic Resources**

***Information Summary:*** The fish and aquatic studies conducted in the 1990s for the FERC license application focused on Sullivan Creek from Mill Pond to the Pend Oreille River. The instream flow studies for this reach should still provide good information, unless there were channel changing events between 1996 and 2008 that resulted in significant habitat changes. The fish data from these studies would be more useful if they are updated. Study 14 from the Boundary Relicensing study program (*Assessment of Factors Affecting Aquatic Productivity in Tributary Habitats*) and studies by Nine and Scholz (2005) and Baldwin and McLellan (2003) provide recent data on fish species and abundance for Sullivan Creek and Lake. The recent assessment by Powers (2008) confirms that there are no absolute barriers to fish passage on Sullivan Creek, although

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some may not be passable by small fish at certain flows. Relatively recent temperature data are available from Ecology and the USFS.

**Key Information Needs:** Overall, there appears to be adequate information on basic fish and aquatic habitat parameters for Mill Pond, Sullivan Creek and lake. Specific information needs will be dictated by the proposal(s) that emerge from Negotiating Team discussions. However, it appears that most of the likely proposals will require clear definition of goals/scope and cost estimates for the following:

- Removal of Mill Pond Dam and/or Sullivan Dam
- Fish passage facilities at Mill Pond Dam and/or Sullivan Dam
- Aquatic habitat restoration for the area between Outlet Creek and Mill Pond
- Aquatic habitat restoration above Mill Pond Dam.

#### Water Quality and Toxics

**Information Summary:** Information from the water quality studies conducted in the 1990s and the more recent Ecology (2005) and Nine and Scholz (2005) publications suggest that water quality in Sullivan Creek and lake is very good and complies with Ecology standards for clarity, fecal coliform, dissolved oxygen, pH, and temperature. However, none of the assessments to date have sampled for heavy metals or other toxic materials in the water column or sediments. While there are some references to past mining activity in the Sullivan Creek drainage, there is no evidence of mining directly associated with the stream itself, the lake, or Mill Pond. There was, however, a lumber mill in the work camp built at the west tip of Mill Pond in 1910. This mill processed the logs used to construct the flume for the Sullivan Creek Project. Information on how long the mill operated and how the logs were treated is not readily available. It is possible that the historic society in Metaline Falls may have some of this information.

**Key Information Needs:** If Mill Pond Dam were to be removed, there is an information gap related to possible toxics in the sediments of Mill Pond. Investigation into the history of Mill Pond would be necessary to determine the need and design of a sampling program for toxics in the sediments.

#### Terrestrial Resources

**Information Summary:** Information on rare, threatened, and endangered (RTE) wildlife and plants from the licensing studies conducted the 1990s is out of date. The wetlands delineation is probably still relevant but also need to be rechecked to determine if there have been any changes.

**Key Information Needs:** Nothing critical at this time. Depending on the nature of future proposals, information might need to be updated on terrestrial resources for the purposes of planning and restoration.

#### Recreation

**Information Summary:** There is adequate information on the number and condition of recreation sites associated with Sullivan Creek, Sullivan Lake, and Mill Pond, however

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use levels and demand are not known. Licensing studies from the 1990s provide information on preferred white water flow conditions.

**Key Information Needs:** Nothing critical at this time. Depending on the nature of future proposals, recreation information might need to be developed, particularly regarding loss of developed sites and trails associated with Mill Pond and any changes to management of Sullivan Lake.

#### Cultural Resources

**Information Summary:** There appears to be good information on the history of the Sullivan Creek Project and Mill Pond. Archeological data are confidential and were not available on any of the web sites.

**Key Information Needs:** More detailed information on the history of Mill Pond would be helpful in determining the need, scope and design of a toxics sampling program.

#### Operation of Sullivan Lake/Instream Flows

**Information Summary:** There is one operating USGS stream gage on Outlet Creek (not real time) and there have been three studies that evaluated hydrologic data (1926-1961; 1928-1968, and 1931-1990). The later study (1931-1990) assessed regulated and unregulated flows.

The study by Nine and Scholz (2005) presents two options for managing Sullivan Lake for improved fish production: (1) operate at the natural lake level (mainly to protect kokanee redds in lower Harvey Creek from being flooded); and (2) lake fertilization. Other alternatives are also possible.

**Key Information Needs:** Nothing critical at this time. Depending on the outcome of negotiations, future operations at Sullivan Lake may need to be evaluated.